



FIRST CATANDUANES ELECTRIC COOPERATIVE, INC.
Marinawa, Bato, Catanduanes

2020
Power Supply Procurement Plan
[2020 - 2029]

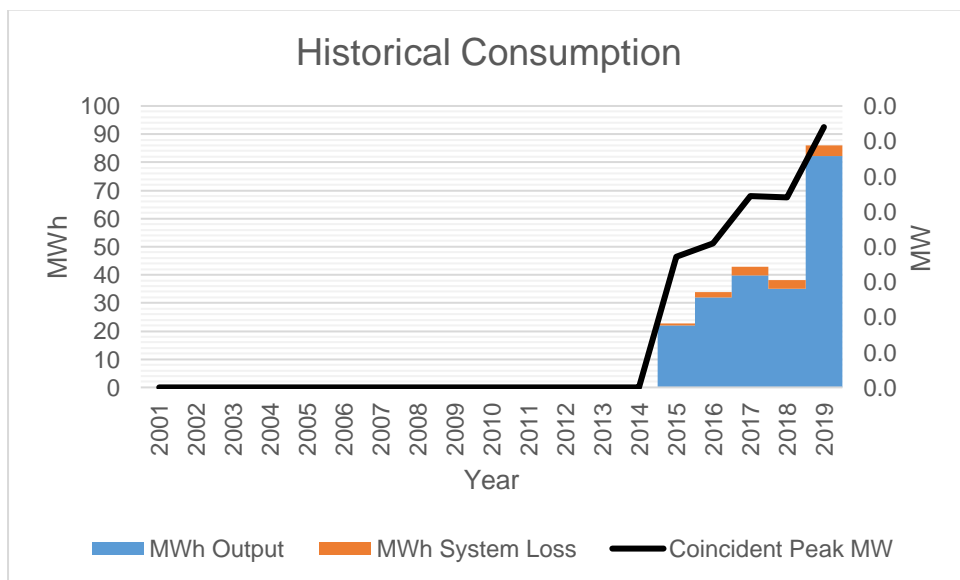
[PALUMBANES ISLAND, CATANDUANES]

As a backgrounder, Palumbanes Island is a sitio of Barangay Toytoy, Caramoran with one hundred two (102) active member-consumers as of 2019. It was energized last 2015 through missionary electrification program of National Power Corporation (NPC) – Small Power Utility Group (SPUG). From 2018 to 2019, NPC-Palumbanes Diesel Power Plants extended its operation from twelve (12) hours to sixteen (16) hours.

Historical Consumption Data

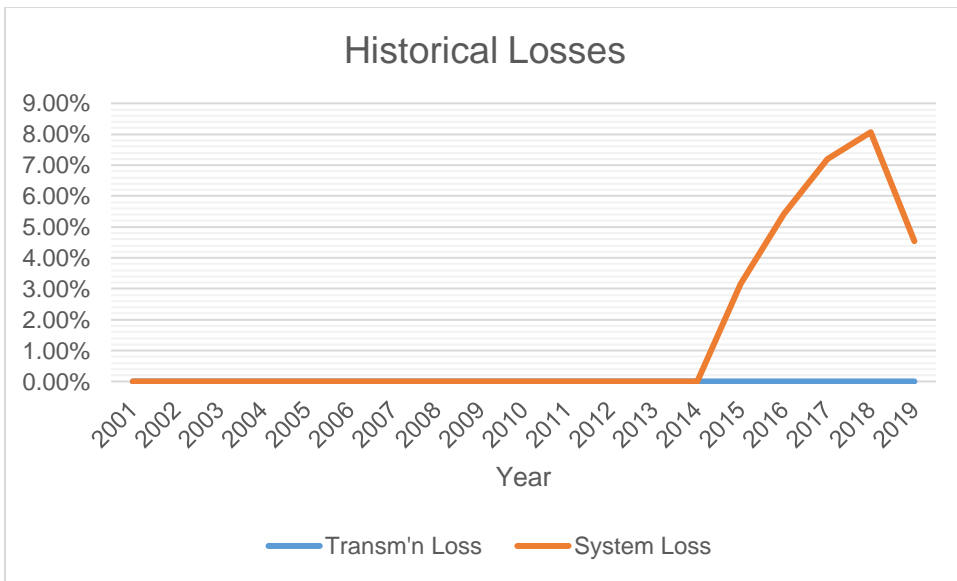
	Coincident Peak MW	MWh Offtake	MWh Input	MWh Output	MWh System Loss	Load Factor	System Loss
2015	0.02	23	23	22	1	14%	3.17%
2016	0.02	34	34	32	2	19%	5.43%
2017	0.03	43	43	40	3	18%	7.20%
2018	0.03	38	38	35	3	16%	8.07%
2019	0.04	86	86	82	4	27%	4.53%

The Peak Demand increased from 0.03 MW in 2018 to 0.04 MW in 2019 at a rate of 33.33%. MWh Offtake increased from 38 MWh in 2018 to 86 MWh in 2019 at a rate of 126.32% and the MWh output also increased from 35 MWh to 82 MWh respectively. These were attributed in extended number of hours of operation of NPC-Palumbanes Diesel Power Plant from twelve (12) hours to sixteen (16) hours. Within the same period, the Load Factor ranged from 16% to 27%.



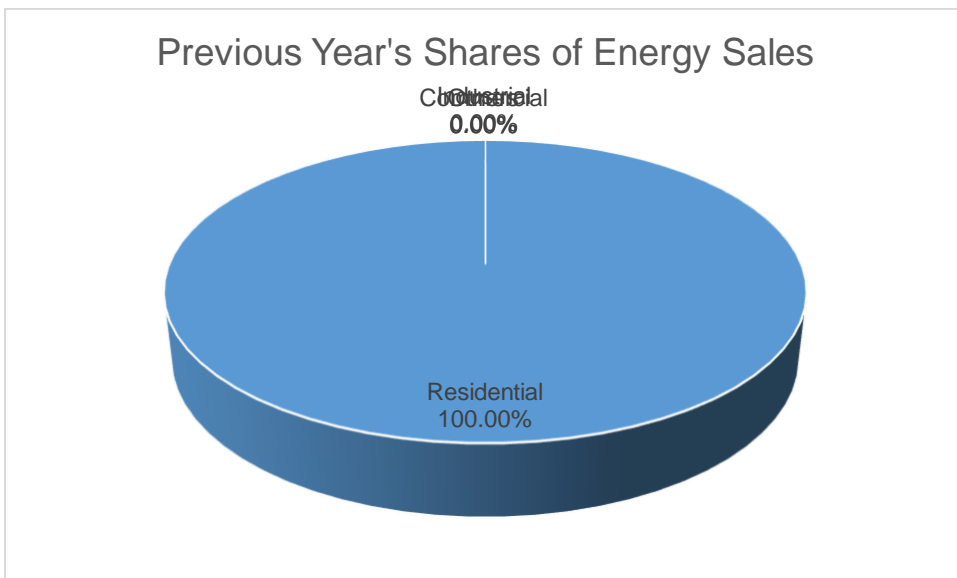
Note: NPC-Palumbanes Power Diesel Power Plant started its commercial operation in 2015.

MWh Output increased from year 2018 to year 2019 at a rate of 134.29%, while MWh System Loss decreased at a rate of 43.87% within the same period.

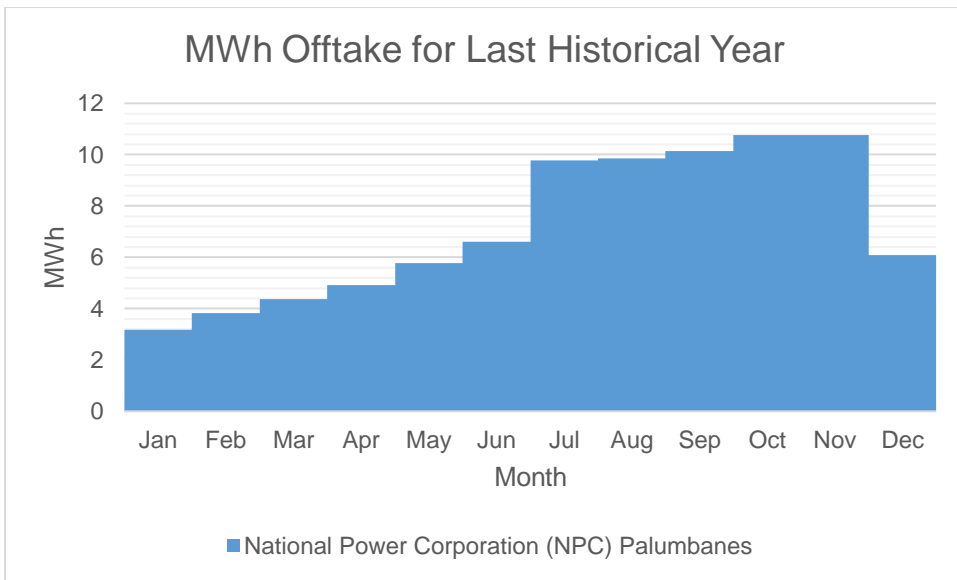


Note: NPC-Palumbanes Power Diesel Plant started its commercial operation in 2015.

Historically, System Loss ranged from 3.17% to 8.07%. System Loss peaked at 8.07% in 2018.

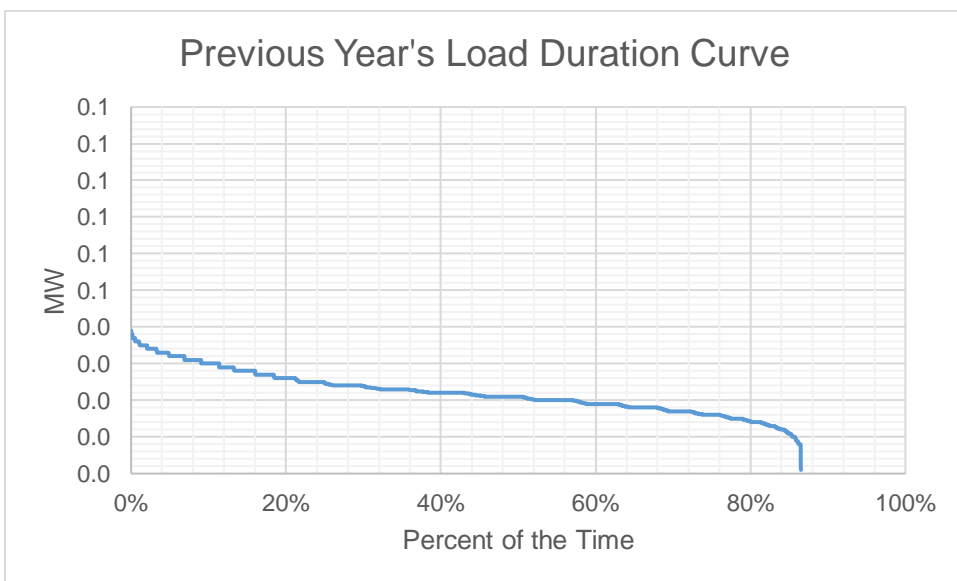


Palumbanes Island consumers were all residential customers and accounted as 100% of energy sales.



For 2019, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. The PSA with National Power Corporation - Palumbanes accounts all the MWh Offtake, since it's the sole power supplier in the island.

Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0.0231 MW or 23.1 kW and the maximum load is 0.0370 MW or 37 kW for the last historical year.

Forecasted Consumption Data

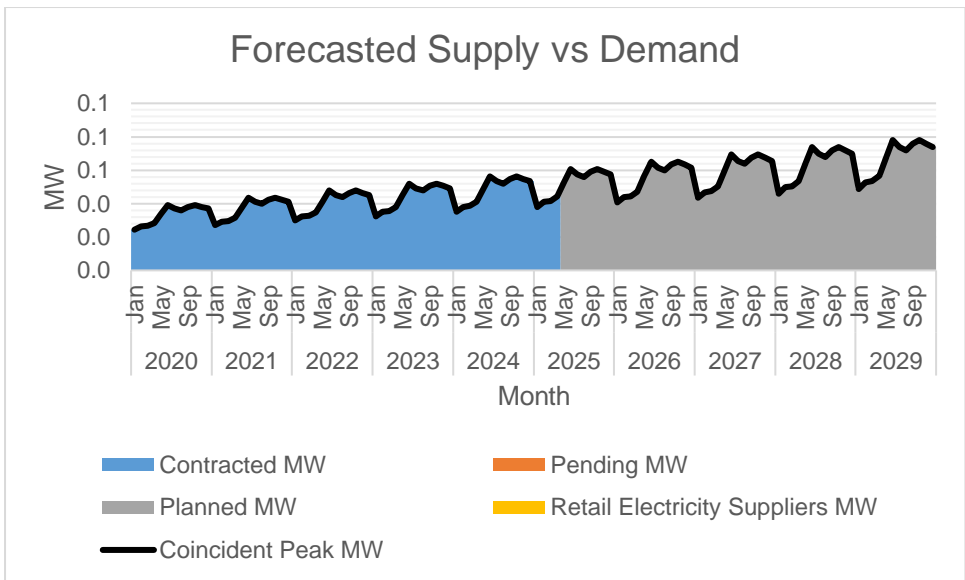
		Coincident Peak MW	Contracted MW	Planned MW	Existing Contracting Level	Target Contracting Level
2020	Jan	0.02	0.02	0.00	100%	100%
	Feb	0.03	0.03	0.00	100%	100%
	Mar	0.03	0.03	0.00	100%	100%
	Apr	0.03	0.03	0.00	100%	100%
	May	0.03	0.03	0.00	100%	100%
	Jun	0.04	0.04	0.00	100%	100%
	Jul	0.04	0.04	0.00	100%	100%
	Aug	0.04	0.04	0.00	100%	100%
	Sep	0.04	0.04	0.00	100%	100%
	Oct	0.04	0.04	0.00	100%	100%
	Nov	0.04	0.04	0.00	100%	100%
	Dec	0.04	0.04	0.00	100%	100%
2021	Jan	0.03	0.03	0.00	100%	100%
	Feb	0.03	0.03	0.00	100%	100%
	Mar	0.03	0.03	0.00	100%	100%
	Apr	0.03	0.03	0.00	100%	100%
	May	0.04	0.04	0.00	100%	100%
	Jun	0.04	0.04	0.00	100%	100%
	Jul	0.04	0.04	0.00	100%	100%
	Aug	0.04	0.04	0.00	100%	100%
	Sep	0.04	0.04	0.00	100%	100%
	Oct	0.04	0.04	0.00	100%	100%
	Nov	0.04	0.04	0.00	100%	100%
	Dec	0.04	0.04	0.00	100%	100%
2022	Jan	0.03	0.03	0.00	100%	100%
	Feb	0.03	0.03	0.00	100%	100%

	Mar	0.03	0.03	0.00	100%	100%
	Apr	0.03	0.03	0.00	100%	100%
	May	0.04	0.04	0.00	100%	100%
	Jun	0.05	0.05	0.00	100%	100%
	Jul	0.05	0.05	0.00	100%	100%
	Aug	0.04	0.04	0.00	100%	100%
	Sep	0.05	0.05	0.00	100%	100%
	Oct	0.05	0.05	0.00	100%	100%
	Nov	0.05	0.05	0.00	100%	100%
	Dec	0.05	0.05	0.00	100%	100%
2023	Jan	0.03	0.03	0.00	100%	100%
	Feb	0.04	0.04	0.00	100%	100%
	Mar	0.04	0.04	0.00	100%	100%
	Apr	0.04	0.04	0.00	100%	100%
	May	0.05	0.05	0.00	100%	100%
	Jun	0.05	0.05	0.00	100%	100%
	Jul	0.05	0.05	0.00	100%	100%
	Aug	0.05	0.05	0.00	100%	100%
	Sep	0.05	0.05	0.00	100%	100%
	Oct	0.05	0.05	0.00	100%	100%
	Nov	0.05	0.05	0.00	100%	100%
	Dec	0.05	0.05	0.00	100%	100%
2024	Jan	0.04	0.04	0.00	100%	100%
	Feb	0.04	0.04	0.00	100%	100%
	Mar	0.04	0.04	0.00	100%	100%
	Apr	0.04	0.04	0.00	100%	100%
	May	0.05	0.05	0.00	100%	100%
	Jun	0.06	0.06	0.00	100%	100%
	Jul	0.05	0.05	0.00	100%	100%
	Aug	0.05	0.05	0.00	100%	100%
	Sep	0.05	0.05	0.00	100%	100%
	Oct	0.06	0.06	0.00	100%	100%
	Nov	0.05	0.05	0.00	100%	100%

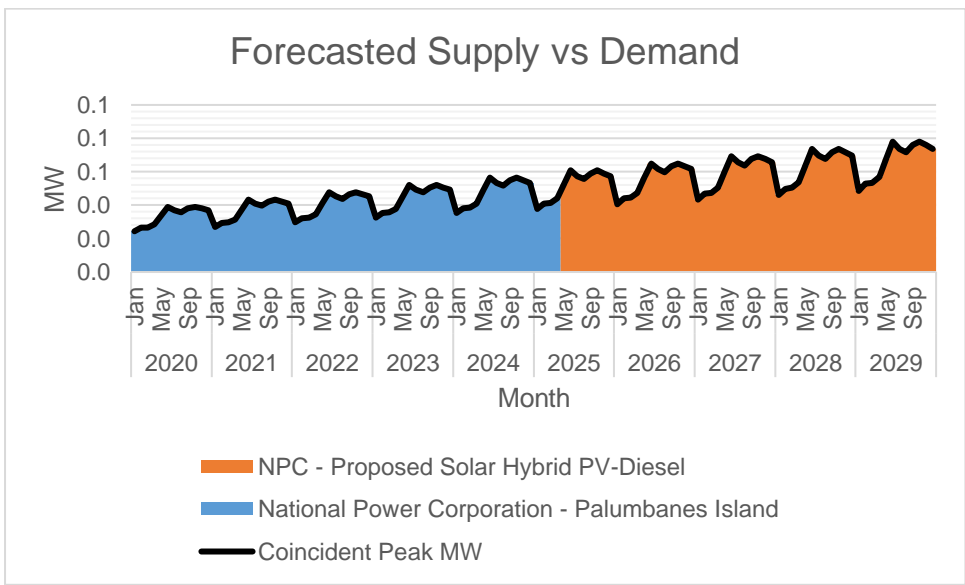
	Dec	0.05	0.05	0.00	100%	100%
2025	Jan	0.04	0.04	0.00	100%	100%
	Feb	0.04	0.04	0.00	100%	100%
	Mar	0.04	0.04	0.00	100%	100%
	Apr	0.04	0.04	0.00	100%	100%
	May	0.05	0.00	0.05	0%	100%
	Jun	0.06	0.00	0.06	0%	100%
	Jul	0.06	0.00	0.06	0%	100%
	Aug	0.06	0.00	0.06	0%	100%
	Sep	0.06	0.00	0.06	0%	100%
	Oct	0.06	0.00	0.06	0%	100%
	Nov	0.06	0.00	0.06	0%	100%
	Dec	0.06	0.00	0.06	0%	100%
2026	Jan	0.04	0.00	0.04	0%	100%
	Feb	0.04	0.00	0.04	0%	100%
	Mar	0.04	0.00	0.04	0%	100%
	Apr	0.05	0.00	0.05	0%	100%
	May	0.06	0.00	0.06	0%	100%
	Jun	0.07	0.00	0.07	0%	100%
	Jul	0.06	0.00	0.06	0%	100%
	Aug	0.06	0.00	0.06	0%	100%
	Sep	0.06	0.00	0.06	0%	100%
	Oct	0.07	0.00	0.07	0%	100%
	Nov	0.06	0.00	0.06	0%	100%
	Dec	0.06	0.00	0.06	0%	100%
2027	Jan	0.04	0.00	0.04	0%	100%
	Feb	0.05	0.00	0.05	0%	100%
	Mar	0.05	0.00	0.05	0%	100%
	Apr	0.05	0.00	0.05	0%	100%
	May	0.06	0.00	0.06	0%	100%
	Jun	0.07	0.00	0.07	0%	100%
	Jul	0.07	0.00	0.07	0%	100%
	Aug	0.06	0.00	0.06	0%	100%

	Sep	0.07	0.00	0.07	0%	100%
	Oct	0.07	0.00	0.07	0%	100%
	Nov	0.07	0.00	0.07	0%	100%
	Dec	0.07	0.00	0.07	0%	100%
2028	Jan	0.05	0.00	0.05	0%	100%
	Feb	0.05	0.00	0.05	0%	100%
	Mar	0.05	0.00	0.05	0%	100%
	Apr	0.05	0.00	0.05	0%	100%
	May	0.06	0.00	0.06	0%	100%
	Jun	0.07	0.00	0.07	0%	100%
	Jul	0.07	0.00	0.07	0%	100%
	Aug	0.07	0.00	0.07	0%	100%
	Sep	0.07	0.00	0.07	0%	100%
	Oct	0.07	0.00	0.07	0%	100%
	Nov	0.07	0.00	0.07	0%	100%
	Dec	0.07	0.00	0.07	0%	100%
2029	Jan	0.05	0.00	0.05	0%	100%
	Feb	0.05	0.00	0.05	0%	100%
	Mar	0.05	0.00	0.05	0%	100%
	Apr	0.06	0.00	0.06	0%	100%
	May	0.07	0.00	0.07	0%	100%
	Jun	0.08	0.00	0.08	0%	100%
	Jul	0.07	0.00	0.07	0%	100%
	Aug	0.07	0.00	0.07	0%	100%
	Sep	0.08	0.00	0.08	0%	100%
	Oct	0.08	0.00	0.08	0%	100%
	Nov	0.08	0.00	0.08	0%	100%
	Dec	0.07	0.00	0.07	0%	100%

The Peak Demand was forecasted using Linear Forecasting Methodology and was assumed to occur on the month of June due to peak of dry season. Monthly Peak Demand is at its lowest on the month of January. In general, Peak Demand is expected to grow at a rate of 11.09 % in year 2020 to 2021.



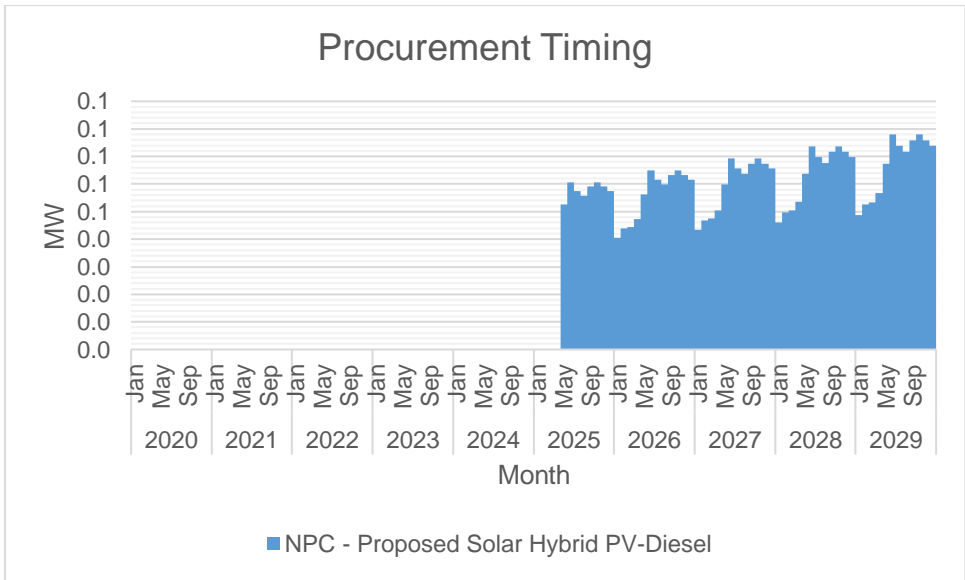
The available supply is generally equals/within the Peak Demand.



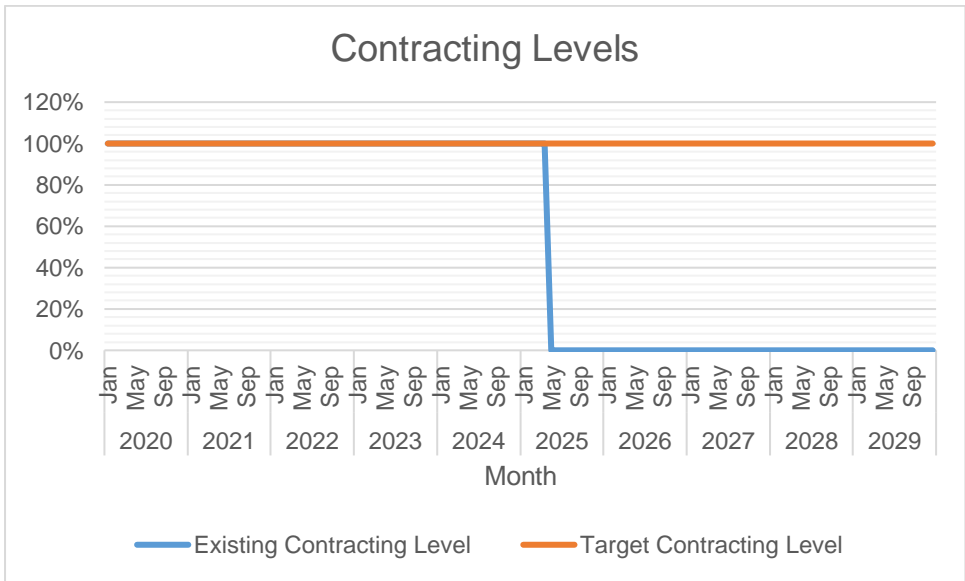
FICELCO's existing Power Supply Agreement (PSA) with NPC will expire on April 25, 2025 and the proposed Solar Hybrid PV-Diesel Project is still subject for study and negotiation. We will update/notify your office regarding the development of this proposed project of NPC.

In 2020, NPC-Palumbanes Diesel Power Plant will be on 24/7 in operation as committed by NPC management.

Available supply is enough to cater the demand of the island until the expiration of the PSA.



NPC’s proposed Solar Hybrid PV-Diesel Project in Palumbanes Island planned to be available in May 2025 with a minimum load of 0.52 MW. We will update/notify your office regarding the development of this proposed project of NPC.



Currently, there is no under-contracting/over-contracting.

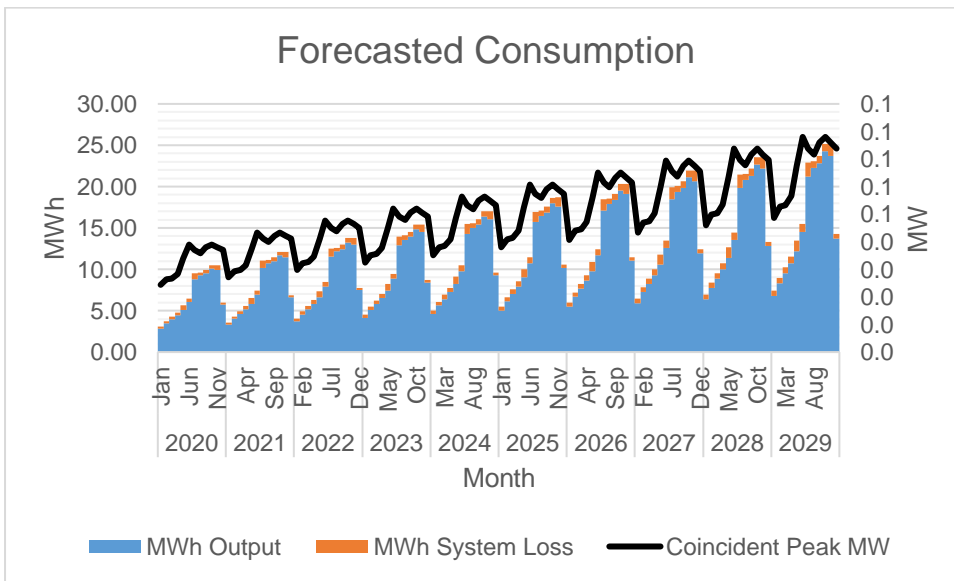
		MWh Offtake	MWh Output	MWh System Loss	System Loss
2020	Jan	3.09	2.84	0.25	8.15%
	Feb	3.73	3.47	0.27	7.17%
	Mar	4.26	3.95	0.31	7.20%
	Apr	4.80	4.46	0.34	7.05%
	May	5.63	5.07	0.56	10.01%
	Jun	6.44	6.04	0.40	6.22%
	Jul	9.54	8.83	0.71	7.49%
	Aug	9.61	9.27	0.34	3.53%
	Sep	9.89	9.50	0.39	3.94%
	Oct	10.49	10.11	0.39	3.68%

	Nov	10.51	9.89	0.61	5.84%
	Dec	5.94	5.70	0.24	4.02%
2021	Jan	3.57	3.28	0.29	8.16%
	Feb	4.32	4.01	0.31	7.18%
	Mar	4.92	4.57	0.35	7.21%
	Apr	5.54	5.15	0.39	7.06%
	May	6.51	5.85	0.65	10.02%
	Jun	7.44	6.98	0.46	6.23%
	Jul	11.03	10.20	0.83	7.50%
	Aug	11.10	10.71	0.39	3.54%
	Sep	11.43	10.98	0.45	3.95%
	Oct	12.13	11.68	0.45	3.69%
	Nov	12.14	11.43	0.71	5.85%
	Dec	6.86	6.59	0.28	4.03%
2022	Jan	4.05	3.72	0.33	8.17%
	Feb	4.90	4.55	0.35	7.19%
	Mar	5.59	5.18	0.40	7.21%
	Apr	6.29	5.85	0.44	7.07%
	May	7.38	6.64	0.74	10.03%
	Jun	8.45	7.92	0.53	6.23%
	Jul	12.51	11.57	0.94	7.50%
	Aug	12.60	12.15	0.45	3.55%
	Sep	12.97	12.46	0.51	3.96%
	Oct	13.76	13.25	0.51	3.70%
	Nov	13.78	12.97	0.81	5.86%
	Dec	7.79	7.47	0.31	4.04%
2023	Jan	4.53	4.16	0.37	8.17%
	Feb	5.48	5.08	0.39	7.19%
	Mar	6.25	5.80	0.45	7.22%
	Apr	7.04	6.54	0.50	7.08%
	May	8.26	7.43	0.83	10.03%
	Jun	9.45	8.86	0.59	6.24%
	Jul	14.00	12.95	1.05	7.51%
	Aug	14.09	13.59	0.50	3.55%
	Sep	14.51	13.94	0.58	3.97%
	Oct	15.39	14.82	0.57	3.70%
	Nov	15.41	14.51	0.90	5.86%
	Dec	8.71	8.36	0.35	4.04%
2024	Jan	5.01	4.60	0.41	8.18%
	Feb	6.06	5.62	0.44	7.20%
	Mar	6.91	6.41	0.50	7.22%
	Apr	7.78	7.23	0.55	7.08%
	May	9.13	8.22	0.92	10.04%
	Jun	10.45	9.80	0.65	6.24%
	Jul	15.48	14.32	1.16	7.51%
	Aug	15.59	15.03	0.55	3.56%
	Sep	16.05	15.42	0.64	3.97%
	Oct	17.03	16.40	0.63	3.71%
	Nov	17.05	16.05	1.00	5.87%

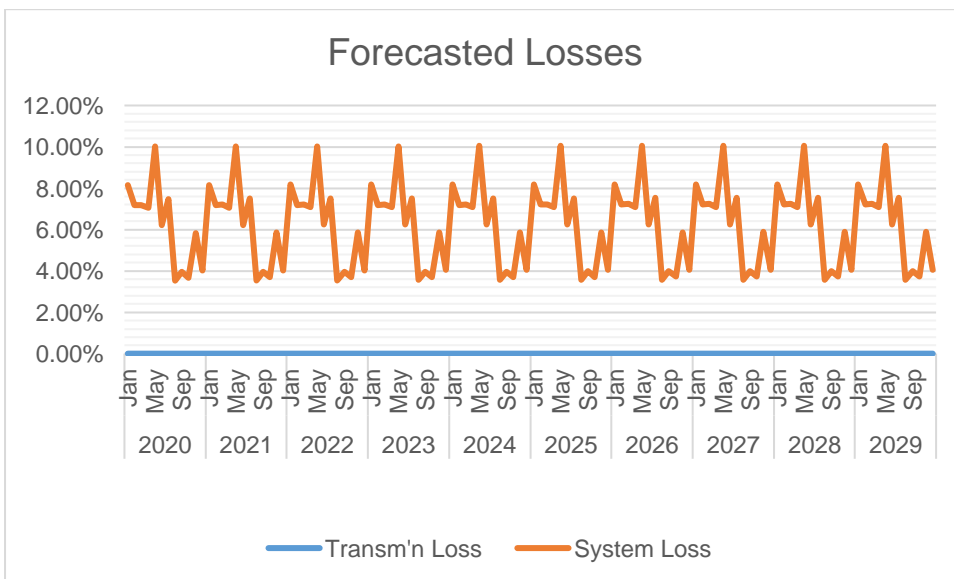
	Dec	9.63	9.24	0.39	4.05%
2025	Jan	5.49	5.04	0.45	8.18%
	Feb	6.64	6.16	0.48	7.20%
	Mar	7.57	7.03	0.55	7.23%
	Apr	8.53	7.93	0.60	7.09%
	May	10.01	9.00	1.00	10.04%
	Jun	11.45	10.74	0.72	6.25%
	Jul	16.97	15.69	1.28	7.52%
	Aug	17.08	16.47	0.61	3.56%
	Sep	17.59	16.89	0.70	3.97%
	Oct	18.66	17.97	0.69	3.71%
	Nov	18.68	17.59	1.10	5.87%
	Dec	10.56	10.13	0.43	4.05%
2026	Jan	5.97	5.48	0.49	8.19%
	Feb	7.22	6.70	0.52	7.20%
	Mar	8.24	7.64	0.60	7.23%
	Apr	9.28	8.62	0.66	7.09%
	May	10.89	9.79	1.09	10.04%
	Jun	12.46	11.68	0.78	6.25%
	Jul	18.45	17.06	1.39	7.52%
	Aug	18.58	17.91	0.66	3.57%
	Sep	19.13	18.37	0.76	3.98%
	Oct	20.29	19.54	0.75	3.72%
	Nov	20.32	19.12	1.19	5.87%
	Dec	11.48	11.02	0.47	4.06%
2027	Jan	6.45	5.93	0.53	8.19%
	Feb	7.80	7.24	0.56	7.21%
	Mar	8.90	8.26	0.64	7.23%
	Apr	10.02	9.31	0.71	7.09%
	May	11.76	10.58	1.18	10.05%
	Jun	13.46	12.62	0.84	6.25%
	Jul	19.94	18.44	1.50	7.52%
	Aug	20.07	19.36	0.72	3.57%
	Sep	20.67	19.85	0.82	3.98%
	Oct	21.93	21.11	0.82	3.72%
	Nov	21.95	20.66	1.29	5.88%
	Dec	12.41	11.90	0.50	4.06%
2028	Jan	6.93	6.37	0.57	8.19%
	Feb	8.38	7.78	0.60	7.21%
	Mar	9.56	8.87	0.69	7.24%
	Apr	10.77	10.01	0.76	7.09%
	May	12.64	11.37	1.27	10.05%
	Jun	14.46	13.56	0.90	6.26%
	Jul	21.42	19.81	1.61	7.53%
	Aug	21.57	20.80	0.77	3.57%
	Sep	22.21	21.33	0.88	3.98%
	Oct	23.56	22.68	0.88	3.72%
	Nov	23.59	22.20	1.39	5.88%
	Dec	13.33	12.79	0.54	4.06%

2029	Jan	7.42	6.81	0.61	8.19%
	Feb	8.97	8.32	0.65	7.21%
	Mar	10.23	9.49	0.74	7.24%
	Apr	11.52	10.70	0.82	7.10%
	May	13.51	12.16	1.36	10.05%
	Jun	15.46	14.50	0.97	6.26%
	Jul	22.91	21.18	1.72	7.53%
	Aug	23.06	22.24	0.82	3.57%
	Sep	23.75	22.80	0.95	3.99%
	Oct	25.19	24.26	0.94	3.72%
	Nov	25.22	23.74	1.48	5.88%
	Dec	14.26	13.68	0.58	4.06%

MWh Offtake was forecasted using Linear Forecasting Methodology.



MWh Output was expected to grow at a rate of 15.55% annually.



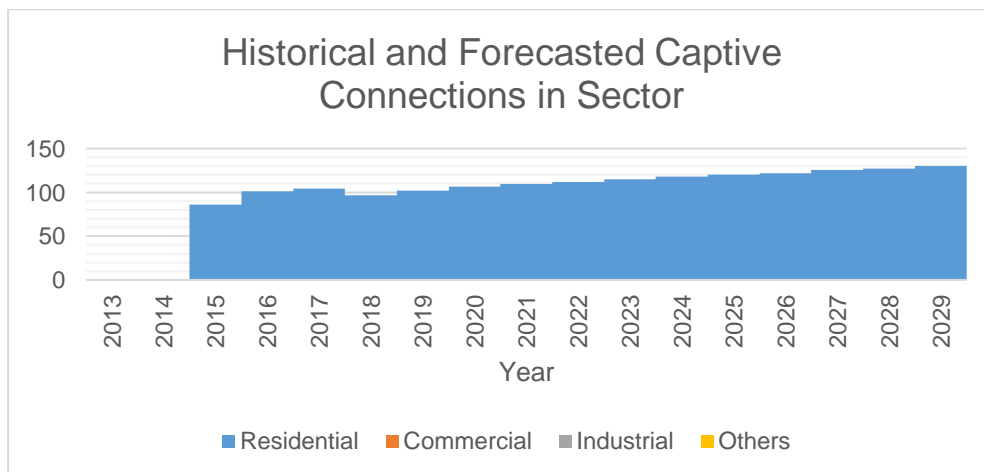
System Loss is expected to range from 5.73% for the year 2020 to 5.77% for the year 2029.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
	Base	National Power Corporation	0.02	83.93	4/26/2020	4/25/2025

	NPC-Proposed Solar Hybrid PV-Diesel
Type	Base
Minimum MW	0.05
Minimum MWh/yr	121.01
PSA Start	4/26/2025
PSA End	4/25/2040

Captive Customer Connections



The number of 106 connections for the year 2020 is expected to grow at a rate of 2.63% for the year 2020. Said customer class is expected to account for 100% of the total consumption.